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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,344	04/29/2004	Georg Reinbold	P7482US	3343

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EXAMINER

LEE, LAURA MICHELLE

ART UNIT	PAPER NUMBER
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3724

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/709,344

Applicant(s)

REINBOLD ET AL.

Examiner

Laura M. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/13/2005; 12/01/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed have been fully considered but they are not persuasive. In regards to the applicant's arguments to claim 1, see the current rejection of Murray '937 in view of Murray '603. In regards to claim applicant's arguments that the 35 USC 103 rejection of Murray in view of Bolton et al. does not teach that the control unit does not continuously recalculate the feeding velocity, it is noted that recalculation is inherently present in the Bolton teaching. As the Bolton reference teaches a monitoring of the conveyor by the encoder, there is an inherent understanding of a continuous monitoring of a change in conveyor distance over time period. The continuous monitoring results in multiple readings of a change in distance over time, which corresponds to a monitoring of a change in velocity or in other words, a recalculation of the velocity. Additionally, Bolton teaches that there are a set of scanners, 40,42 such that detection of an off size defect by the scanners is conveyed to the computer, so that the computer keeps track of the position of the defect as it moves along the conveyor. Therefore, the encoder 50 continuously monitors (recalculates) the position and therefore, velocity, of the wood along the conveyor.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,3 and 6-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Murray (U.S. Publication 2002/0069937) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Murray (U.S. Patent 6,308,603).

In regards to claims 1 and 13, Murray '937 discloses (see Figure 5) a method for sawing pieces of wood in a sawing station, the method comprising the steps of:

a) measuring the pieces of wood in a measuring station (parallel log scanners, 56,57; paragraph [0053]);;

b) sequentially transporting (conveyors 60,62) the pieces of wood from the measuring station to a sawing station (log indexer 58 /buck sawing apparatus, 10);

It is also noted that the limitation "sawing station" has been interpreted to not be limited to include only the structure holding the sawing blade, such that the indexing system is also a part of the sawing station. Additionally, if the sawing station had not been recited as being a part from the measuring station, the limitation could have been interpreted to mean the entire wood processing operation as shown in Figure 5.

c) cutting the pieces of wood in the sawing station into at least two sections based on measured results taken in step a)(paragraph [0038]; *The log 12 will have been scanned prior to arrival at the tilted infeed conveyor 14 and this scanning information is used to determine the location of the cuts made by cut-off saw 26.*);

wherein the step b) a second piece of wood that trails (off of log deck, 50) immediately a first piece of wood being cut (by saw, 26) in the sawing station is already transported into the sawing station (log indexer 58) while the first piece of wood is still being cut (paragraph [0041]) where in the step b) a feeding velocity of the second piece of wood is controlled by a control unit (the feeding of the wood is controlled by a variable speed drive, that inherently has a control unit; whether manual or automatic to adjust the speed and a log indexer 58) such that the second piece of wood does not contact the first piece of wood within the sawing station (the wood pieces never touch as evidenced by paragraph [0044]; *As illustrated in FIG. 5, logs are transported transversely on a log deck 50 to a diverter gate 52 where they are diverted onto one of two parallel conveyors 54, 55 which transport the logs longitudinally through two parallel log scanners 56, 57 and from there by parallel conveyors 60, 62 to a log indexer 58 where two log sweeps 59 alternately sweep the logs onto in feed conveyor 14 and from there to the buck sawing apparatus 10);*

and a spacing of an end face of the second piece of wood relative to a trailing end face of the first piece of wood is minimized (paragraph [0041] *Since the infeed and outfeed conveyors continue to feed during the intervals when rolls 18, 19, 20, and 21 are stopped to buck the log, gaps between the logs are reduced and the throughput is increased).*

However, to the extent that it can be argued that the second piece of wood that trails a the first piece of wood would not be located in the log indexer portion (58) of the sawing station while the first piece of wood is still being cut, attention is directed to the

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Murray '603 reference. Murray '603 discloses that in conventional systems, where the logs are conveyed on a single conveyor, through the scanners, that a gap of two to four feet between consecutive logs is well-known, yet undesirable (column 5, lines 14-34). Therefore, as similarly disclosed by Murray '937 (paragraph [0044]), it is desirable to divert the logs through two scanners to reduce gaps between logs as they enter the bucking system. Although neither Murray reference discloses what this ideal gap would be, the worst scenario would be a gap of four feet as is already old and well known in the art. Additionally, as a perspective of the size of the sawing system, Murray '603 discloses that the feed rolls have a diameter of about two feet. As the identical feed rollers are disclosed in Murray '603 and Murray '937 (see Figure 1 of each reference), and identical diverting systems (see Figure 5 of each reference) it can be extrapolated that even if the gap was at a worst case of four feet, the second piece of wood would be well within the indexing area, when the first piece of wood was being cut. It would have been obvious to one having ordinary skill in the art at the time of the invention that the second piece of wood of the Murray '937 device would have been within the sawing station (at the indexing point) while the first piece of wood was being cut since as taught by the Murray '603 device, a gap of four feet is undesirable, which dimensionally would place the second piece of wood well within the indexing station.

In regards to claim 3, Murray '937 as modified by Murray '603, discloses wherein, in the step of controlling, the feeding velocity of the second piece of wood is controlled variable (variable- feed drive).

In regards to claim 6, Murray '937 as modified by Murray '603, discloses wherein a feeding velocity of the second piece of wood is controlled so as to minimize between the first and second pieces of wood (paragraphs [0038] and [0041]).

In regards to claim 7, Murray '937 as modified by Murray '603, discloses wherein, in the step a), a length of the pieces of the wood is measured (paragraph [0038]). The log is first scanned with log scanners 56,57

In regards to claim 8, Murray '937 as modified by Murray '603, discloses wherein a defect of the pieces of wood is measured. As the log is first scanned with log scanners 56,57, and defects of the wood are also scanned.

In regards to claim 9, Murray '937 as modified by Murray '603, discloses comprising step of saving the measured results (as they are transferred to the cut-off saw).

In regards to claim 10, Murray '937 as modified by Murray '603, discloses the step of controlling the feeding velocity of the second piece of wood, wherein the measured results that are saved are used for controlling the feeding velocity.

In regards to claim 11, Murray '937 as modified by Murray '603, discloses in the step b) the second pieces of wood are supplied without interruption to the sawing station (paragraph [0041]).

In regards to claim 12, Murray '937 as modified by Murray '603, discloses the step of decoupling a drive for transporting the pieces of wood to the sawing station from a drive of the sawing station (paragraph [0048], as the log is transferred from the conveyor to the hourglass roll).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murray in view of Bolton et al. (U.S. Patent 4,934,228), herein referred to as Bolton. Murray discloses the claimed invention except the step of continuously monitoring a position of the pieces of wood, wherein the control unit calculates the feeding velocity based upon the continuously monitored positions of the pieces of wood. However, attention is directed to the Bolton device that discloses a system of diverting veneer sheets having off size defects. The system includes a set of scanners, 40,42 such that detection of an off size defect by the scanners is conveyed to the computer, so that the computer keeps track of the position of the defect as it moves along the conveyor 36. The movement of the in-feed conveyor is tracked by an encoder 50 connected positioned at the end of the in-feed conveyor 36. Whereas the conveyor may be simply driven at a desired speed and that speed input to the computer 38, it is preferable to use the encoder 50, which monitors the conveyor movement. Therefore, the encoder 50 continuously monitors the pieces of wood, where their defect position is relayed to the computer (controller), and where the conveyor's speed is variable based upon the

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wood's position. It would have been obvious to modify the variable speed conveying means of Murray in view of the teachings of Bolton as a function of continuous monitoring of the positions of the wood's defects in order to control the cutting and removal of the defects.

6. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murray (U.S. Patent 6,308,603) in view of Wurster and Dietz (DE4327040).

Murray discloses a method for sawing pieces of wood in a sawing station, the method comprising the steps of:

- a) measuring the pieces of wood in a measuring station (column 3, lines 6-8);
- b) sequentially transporting the pieces of wood from the measuring station to a sawing station (along infeed conveyor 14; Figure 1);

It is also noted that the limitation "sawing station" has been interpreted to not be limited to include only the structure holding the sawing blade, such that the conveying system is also a part of the sawing station.

- c) cutting the pieces of wood in the sawing station into at least two sections based upon the measured results taken in step a)(column 3, lines 6-8);

wherein in the step b) a second piece of wood that trails immediately a first piece of wood being cut in the sawing station is already transported into the sawing station while the first piece of wood is still being cut; *(Murray discloses that when the logs are conveyed on a single conveyor, through the scanners, that a gap of two to four feet between consecutive logs is well-known, yet undesirable (column 5, lines 14-34). As a*

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perspective of the size of the sawing system, Murray further discloses that the feed rolls have a diameter of about two feet, and as shown in Figures 1-4, and it can be extrapolated that even if the gap was at a worst case of four feet, the second piece of wood need to be on the conveyor (14), when the first piece of wood was being cut in order to maintain a minimum of four feet difference between the two wood pieces)

In this embodiment, Murray does not discloses that wherein in the step b) a feeding velocity of the second piece of wood is selected such that the second piece of wood does not contact within the sawing station the first piece of wood and a spacing of an end face of the second piece of wood relative to a trailing end face of the first piece of wood is minimized, and wherein the feeding velocity of the second piece of wood is controlled as a function of a position of the trailing end face of the first piece of wood within the sawing station. However, attention is directed to the Wurster and Dietz device. Wurster and Dietz disclose an apparatus for conveying boards that as disclosed by the provided translation of German reference, a means of utilizing sensors that detect the wood movement in combination with conveyors to adjust the speed of the conveyors/boards so that the boards do not hit the preceding boards. It would have been obvious to one having ordinary skill in the art to have modified the Murray device with a sensing and conveying means as taught by Wurster and Dietz to prevent boards from contacting each other as they move down the conveyors.

Conclusion

7. Applicant's amendment in combination with applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 12/01/2006 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a) and MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M. Lee whose telephone number is (571) 272-8339. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LML

2/14/2007


BOYER D. ASHLEY
SUPERVISORY PATENT EXAMINER